

## APPENDIX I

### **Input Received During First Series of Public Meetings: “Sharing Public Waters: A Community Discussion”**

Below is a compilation and analysis of the information provided at public meetings in five coastal locations in winter 2005. The first two documents are the problems, issues and concerns that people have related to their coastal environments. The second set of documents compiles the problems directly related to governance of nearshore environments.

#### **DOCUMENT 1: PROBLEMS, ISSUES AND CONCERNS REGARDING MAINE’S NEARSHORE ENVIRONMENT Ecological Issues**

##### ***Impact of land-based activities on the marine environment***

1. Land use impact on water quality and marine ecosystems: Caused by - loss of vegetated buffer zones, urbanization, non-point source pollution, local sewage treatment, industry
2. Human activities harm marine organisms/habitats: Recreation threatens seabird habitat; dams restrict fish passage and change ecosystems; filling wetlands; seawall impacts; excessive development on small islands; development encroachment on marshes, wetlands and beaches
3. Impact of recreation/tourism: Increased tourism putting pressure on islands and remaining wild places; intertidal habitats negatively impacted by visitor use.

##### ***Impact of water-based activities on the marine environment***

1. Harvesting concerns: impacts of mussel dragging; shellfish harvesting harms ecologically sensitive areas;; depleted fisheries (i.e. urchins, scallops, groundfish) and other stocks (American eel, dogfish, and flounder); new fisheries are often underregulated (knotted wrack); impacts of aquaculture
2. Impact of recreation/tourism: lack of pump-out stations and boater use of existing facilities; intense seasonal (summer) use by recreational boaters; cruise ships impact water quality, air quality and marine mammals
3. Dredging/Waste concerns: dredging needed yet it disturbs habitat; need dredge spoils disposal options; hazardous waste disposal; deliberate dumping into bay
4. Water use impact on water quality: aquaculture, oil spills.
5. Human activities on the water harm marine organisms: farmed salmon impacts wild salmon; loss of eel grass (i.e. from dock construction); ghost traps.

#### **Social Issues**

##### ***User conflicts***

##### **Activity-based conflicts**

1. Multi-use conflicts: In multi-use areas, everyone thinks their use is more valid; multiuse conflicts greater in summer. Some areas actively try to balance fishing, aquaculture, recreation, commerce, transportation and tourism while others think that too many uses (moorings, lobstering, fishing, swimming) in one place inhibits recreation.

2. Commercial access to water from land impacted by competition at public docks with recreational users (i.e. tourists block landing for unloading of clam diggers), as well as with other commercial users.
3. Conflicts between harvesters: Lobstermen and mussel rafts compete for space; Fiercely guarded lobster territories hems in some fishermen to certain areas; Fixed gear conflicts with ability to trawl; Pillage of mussel beds by harvesters from away.
4. Safe navigation concerns: Many different vessel types (large, small, working, transit, recreation, fast, slow) all trying to use same space. Lobster gear in channel creates navigational challenge for other boaters; conflict between lobster boats and most other boaters (from kayakers to LNG tankers); recreational boaters and jet skiers operate with no safety training or boater education.
5. Scientific research impacted by public and commercial uses: Marine lab needs clean salt water but mussel dragging damages intake and stirs up sediment; research area (markers and sites) disturbed by draggers and urchin fishing; Lack of intertidal areas where public access is restricted but research can take place; Lack of subtidal areas where boating and commercial fishing (esp. bottom trawling/dragging) isn't allowed

### **Cultural or perspective-based conflicts**

1. Differing views on how resources should be used: New coastal residents perceived to have no interest in commercial uses of water, including fisheries and aquaculture (opposition to mussel rafts, riparian landowner boat interference at aquaculture site; lack of support for infrastructure to support commercial fishing and aquaculture); some coastal residents think others lack respect for private property.
2. Water access (public or working waterfronts) needed but some local residents fight it.
3. Differing views on aesthetics: Cruise ships (and other specific activities) believed to impact aesthetics.

### ***Economics***

1. Support economic uses of coast: Ecotourism; need dredged channels for commercial maritime commerce; encourage acceptance of aquaculture industry and waterfront development; need to preserve native traditional uses of resources; need to prevent regulatory history from disadvantaging some groups (local fishermen may not have permits to access returning groundfish stocks)
2. Balance economic development with other issues: Conservation is fine, but balance with economic diversity and with small fishing communities; important to preserve traditional working uses while controlling coastal development; balance waterfront development with environmental concerns.

### ***Management Process***

1. Current management process yields poor outcome: Concerns that there is a lack of ecosystem management perspective; concerns that existing management framework for certain species (urchins, rockweed, periwinkles) is insufficient; work should be done to identify and restore areas damaged by human activity; need for more municipal planning; scale of management is not right; management doesn't integrate land-based and water-based issues;
2. Current management process insufficient for participants: Concerns about aquaculture leasing process; bureaucratic system not responsive enough; lack of State vision for the coast.

3. Insufficient resources: Not enough DMR staff (e.g. to retest shellfish closures, water quality testing, to respond to problems); towns don't have resources for enforcement
4. Impact on harvesting: Conservation efforts are stymied (no fishing area violated by rogue urchin divers; no incentives for local conservation efforts because outsiders can come in and harvest.)

### ***Water access issues***

1. Threatened or limited public access (for recreation, beaches, passive enjoyment, transient yachts, kayaks/canoes, etc.) – usually attributed to increased use and/or increased population. Also can be a cultural clash issue (see above).
2. Threatened or limited working waterfront (for fishing, clamming, worming, or other commercial uses) – attributed to increased waterfront development and taxes, as well as to competition at public facilities (see activity based conflicts above)
3. Limited support for water access: Moorings (overflowing, lack of suitable anchorages); parking limitations (not enough spaces, exorbitant fees, lobstermen taking spots early in morning); dinghy storage; pump-out stations.

### **No Problem!**

### ***Use or Enjoyment of an area***

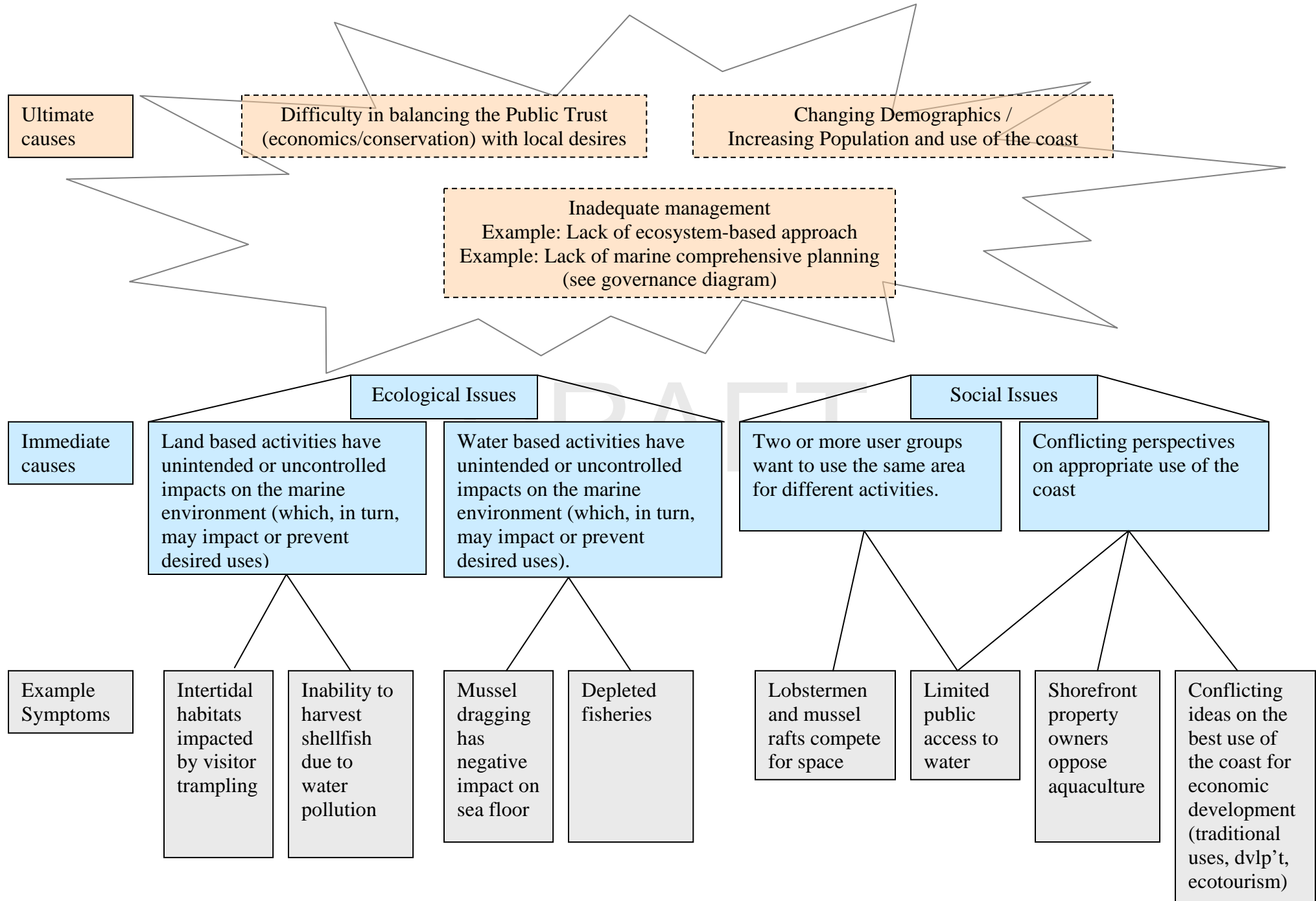
1. Desire to maintain identified places as they are: Passive recreation, boating, fishing, camping, wildlife observation, conservation; scenic values
2. Desire to conduct resource extraction in same locations as currently used: Lobster, shellfish (mussels, clams, quahogs, scallops), urchins, crabs, rockweed, aquaculture (finfish or shellfish)
3. Desire to maintain existing biological integrity of coastal ecosystems; Desire to keep remote outer islands remote; some sites have ecological value

### **Diagram: Identifying Problems on the Maine Coast**

As indicated in this document, there were over 500 problems, issues and concerns identified at the initial public meetings. Although some problems are common to many bays, the specific mix of problems is unique to each specific area or bay. Further, the information collected in the 2005 meetings was a snapshot of the problems present at the time. It is fully expected that the problems faced by an area will continue to evolve, and that management solutions should be structured to anticipate, to the degree possible, future needs. Thus, the aim of the following diagram is to help us identify and address the *causes* of a wide range of problems.

- ⇒ At the bottom of the page in the gray boxes labeled “Example Symptoms” are a few of the problems identified at the public meetings.
- ⇒ The blue boxes in the middle of the diagram labeled “Immediate Causes” show the four causes that result in all of the identified problems.
- ⇒ At the top of the page, in the tan boxes, are the “Ultimate Causes” of the problems. The ultimate causes regarding the public trust and changing demographics are difficult to address or control. In contrast, the ultimate cause labeled “Inadequate management” is an area in which we could make changes.

## DOCUMENT 2: IDENTIFYING PROBLEMS ON THE MAINE COAST



## DOCUMENT 3: PROBLEMS WITH GOVERNANCE OF MAINE'S NEARSHORE ENVIRONMENT

### Background

At an initial set of five public meetings along Maine's coast, participants were asked whether Maine's bays were being managed well in regards to five aspects of governance: 1) local input; 2) use of science; 3) coordination of multiple agencies; 4) accommodating multiple uses; and 5) matching the scale of management to the scale of the activity or use being managed. The following summary provides an overview of the points raised during the small group discussions, but does not list every comment mentioned. A complete list of comments is available by request.

### 1) Local Input

We asked meeting participants to identify what works and does not work in terms of incorporating local input in management decisions. We found that 'local input' spurred more discussion than any of the other aspects of management. Some of the questions that arose out of this discussion centered around who is a local person, and to what degree does local 'input' mean local 'control.'

Examples where local input in bay management is *working well*:

- Existing opportunities for local input in government processes. Identified examples usually had at least a medium level of control for participants. Lobster zone councils came up several times, and some people recognized the aquaculture lease process for allowing involvement.
- Regional cooperation leading to control of resources. These examples focused on locals coming together themselves to manage resources, such as the St. George River wormers and the Cobscook Bay Fishermen's Association.
- Town control. These were examples of towns being proactive, taking advantage of the ability they have to manage coastal areas through shellfish ordinances, zoning, and harbor management.
- Interlocal agreements between towns. In a few areas, towns have come together to manage resources, and these examples were noted as good opportunities for local input. Two examples are a 'no buoy zone' and an 'interlocal stormwater working group.'
- Citizen groups taking action. Voluntary efforts, usually with no designated power, were often cited as opportunities for local involvement that make a difference. These range from "Friends of" groups to annual beach cleanups to stewardship of islands.
- Industry participation. Marine-based industry representatives mentioned ways they have been involved through the Clean Marinas program and aquaculture bay zones.

Examples where local input in bay management is *not working well* are:

- The existing process for local input does not work. While many participants acknowledged that opportunities exist for local input, they felt that they were inadequate.
  - ⇒ *Lack of empowerment*. Participants felt that what they say does not influence decisions. State agencies are not responsive to local input, which results in people not wanting to participate in the future. Some of the examples are: the aquaculture lease process, the LNG debate, and the Administrative Procedures Act.
  - ⇒ *Methods of participation fail to engage some groups*. The public meeting format was cited as a method that does not work well for certain groups of people, especially

fishermen. Furthermore, the amount of time and preparation to effectively participate in hearings limits involvement of some people.

⇒ *Activity seen as having no opportunity for local input.* LNG and ground fisheries were specifically noted as not allowing for local input.

- Towns lack ability to carry out task or to see the bigger picture. Even though towns have opportunities to manage resources, they may not have the ability to do so effectively. It was suggested, for example, that towns do not know enough to develop and/or enforce effective shoreland zoning or other ordinances. Related, towns may be reluctant to think/act regionally or consider the bigger picture (i.e. port authority approving docks).

## 2) Science

We asked participants to discuss how science is incorporated into management decisions, and found that people had almost as much to say about this as they did about local input. Participants were generally in favor of science-based decision making, but stressed the need to better incorporate local knowledge.

Examples where incorporating science in bay management is ***working well***:

- State/Federal government using science effectively. There were several references to data being used effectively in shellfish management – from volunteer data to DMR water quality testing to shoreline surveys. Other examples included creating a no discharge zone for inner Cobscook Bay, and Beginning with Habitat data provided to towns.
- Information dissemination. Most of the examples related to the good distribution of scientific information were by non-government entities. Examples included the Wells Reserve and Gulf of Maine Research Institute (GMRI). The increased availability of GIS information for decision making was also noted.
- Collaborative research. The collaboration between fishermen and scientists (at DMR and at GMRI) was noted as an effective use of the scientific process and local knowledge.

Examples where incorporating science in bay management is ***not working well***:

- Not enough good data. Science isn't being used well, according to some, because agencies are making decisions with limited information for things such as invasive species, or cumulative impacts. Lack of data was often linked to limited funds for applied research (for both governments or NGOs). Lastly, some said that data is biased.
- Available science is not being used or linked to policy decisions/makers. There were many examples provided of decisions being made without regard to appropriate data. Examples include: Urchin and rockweed management, beach closures, aquaculture lease process, and a Mere Point dock proposal. In some cases, it was suggested that the problem lies in getting information to decision makers, while in other cases, the problem described was that the decision-makers are failing to consider available data.
- Local knowledge ignored. Some participants felt that local knowledge has been ignored, and only official studies considered in decision making (i.e. urchin management, LNG).

### 3) Multiple agencies

We asked participants to discuss what has worked or not worked in terms of encouraging multiple agencies or levels of government to work together effectively in decision making.

Examples where multiple agencies are ***working well*** together are:

- Participants seemed to have trouble coming up with examples of multiple agencies or levels of government working well together. Some pointed out that having various agencies working in the same area is good because it provides checks and balances. But the only examples that participants provided of actual multi-agency collaboration were local groups that maintain connections with other agencies or groups. Watershed organizations and land trusts were most often mentioned in this category.

Examples where multiple agencies are ***not working well*** together are:

- Conflicting policies/lack of common vision. It was perceived that different state agencies have different policies or goals for the same areas or resources. For example, DOT and DOC have different plans for Sears Island, and land use agencies and water use agencies (i.e. DEP and DMR) have conflicting policies. Others suggested that the problem was a lack of a plan or vision in the state for coastal resources.
- Agencies do not work together. When multiple governing authorities have jurisdiction over similar areas, it can create a difficult system for others to work within. Examples include: filling out similar paperwork for both DMR and Federal agencies on dogfish collecting, dealing with both DEP and EPA and DMR in aquaculture leasing, and the various agencies involved with septic systems and shellfish closures (DEP, DHHS, DMR). The complexity of dealing with so many agencies leads to delays and is confusing.
- Poor coordination between State and towns. State should be responsible for coordinating with towns. For example, local code enforcement could be enhanced if state worked more closely with towns so they know their roles and are outfitted with needed tools and knowledge.

### 4) Multiple use planning

We asked participants to discuss what has worked or not worked in terms of how governance accommodates multiple uses in an area. While participants were able to give examples of where multiple uses were or were not occurring, it appeared more difficult for them to point to aspects of governance that helped or hindered these situations.

Examples of how governance encouraging multiple uses is ***working well***:

- Direct communication or tradition. Although communication between various user groups (i.e. commercial and recreational users, fishermen and landowners) may not be a formal governance technique, it was pointed out as a method of self-governance that can work well.
- Working waterfront planning. Some waterfront areas have planned well for both commercial and recreational uses.
- Business practices and/or educational efforts. Again, although not a governmental practice, it was pointed out that when businesses agree on certain practices (i.e. boatyard regulations through the clean marina program, no discharge zones in Casco Bay) or

engage in education (i.e. brochures and signs promoting piping plover protection), the end result is that more uses end up being compatible in one area.

Examples of how governance encouraging multiple uses is ***not working well***:

- One use in an area prevents or hinders another use in the area. Some of the many examples discussed are: recreational uses get priority over commercial uses, land uses (esp. pollution) negatively impact water uses, and use of low tide channels. A more specific example was that shellfish harvesters are concerned that if they are conserving an area (reseed, brush, do rotation), others (like worm diggers) have access to area and disturb it, which means they are reluctant to put too much effort into conservation. Shoreland zoning planning and enforcement was the only aspect of governance specifically mentioned as needed improvement to help with multiple use planning. Thus, it may be a lack of governance techniques to mitigate use conflicts that is being described.
- Access issues. Some participants felt that the problem of multiple-use conflicts rests in the lack of access for certain user groups (commercial, recreational).

#### **5) Scale of management matches scale of resource/use**

We asked participants if the scale of management was appropriate for the specific resource or use it was managing. For example, a town trying to manage a resource that people felt needed to be managed at a state-wide level would be an example of mismatched scales.

Examples of where the scale of management matching the scale of the resource is ***working well***:

- Town level. Participants felt that towns having control over the management of certain resources (i.e. clam ordinances, shellfish management, harbor management) was appropriate.
- Regional level. A few examples of appropriate regional management of resources were: lobster zone councils, local grassroots coalitions, and Wells Reserve.
- State level. The Beginning with Habitat program was cited as a good example of a state-level program assisting with town-level decisions.

Examples where the scale of management matching the scale of the resource is ***not working well***:

- Too large of a management scale. There were some general comments that top-down (Augusta-based or federal ground fishing) management is not appropriate. The two-zones in urchin fishery management were noted in particular as being too large.
- Local scale management lacks big-picture approach. Some participants felt that towns don't look past municipal boundaries to the detriment of resource management (i.e. beach closures, clams). DMR was also cited as lacking an ecosystem approach to their management of state-wide resources (esp. not considering land uses that impact marine systems).
- Not enough assistance available at local level. While towns may be the appropriate scale for managing some resources, they are not provided with enough assistance to do so properly. It was noted that there are not enough DMR staff based at the local level.

## 6) Other

Participants in the public meetings were also encouraged to describe any other aspects of bay management that they felt was or was not working well. These are pieces of governance that did not fit into any of the other major categories.

Other examples where governance of bays is *working well*:

- Watershed management: Addresses multiple uses and multiple species at a regional level.

Other examples where governance of bays is *not working well*:

- Regulations or enforcement: Examples of where there were not good regulations in place, or where existing regulations are not enforced included: Shoreland zoning, emerging species regulation (i.e. Rockweed), and the difficulty towns have in writing good ordinances.
- Economic constraints: While not a method of governance, some participants pointed to economic problems as hindering governance efforts. For example, DMR has more to take care of given their staff and funds, the tax system is driving local people away from the coast, and the market forces work against commercial fishermen.

DRAFT

## **Suggested Improvements**

Throughout the discussion of governance, participants suggested various ways to improve decision making. The following is a synopsis of these suggestions:

### **Local Control**

- Look at examples where local people have successfully managed their own resources and find ways to replicate this elsewhere and for other resources/uses.
- Encourage more interlocal agreements.
- Develop participation methods that engage groups that are often left out of decision making. For example, seek out fishermen in their own environment and make meetings less academic.
- Provide towns with better information about what their roles are and are not in managing coastal resources (i.e. shoreland zoning, etc.)
- Explore how local input can be increased while also maintaining state control over some aspects of state-wide or public trust significance.

### **Science**

- Provide informal ways to exchange information (not just in public hearings/meetings). Similarly, develop mechanisms for conveying science to local decision-makers.
- Create central (but local) repositories for scientific information that can be accessed by anyone.
- Actively seek out local knowledge for use in decision making.
- Seek out more funding for applied research.

### **Multiple Agencies**

- Develop a state vision for the coast. Develop a statement about the value of the coast (culturally, economically and ecologically).
- Create a streamlined or centralized method for dealing with multiple state agencies with jurisdiction in the same area or over the same resources.

### **Multiple Uses**

- Encourage more direct communication between different user groups.
- Develop governance for dealing with user conflicts.

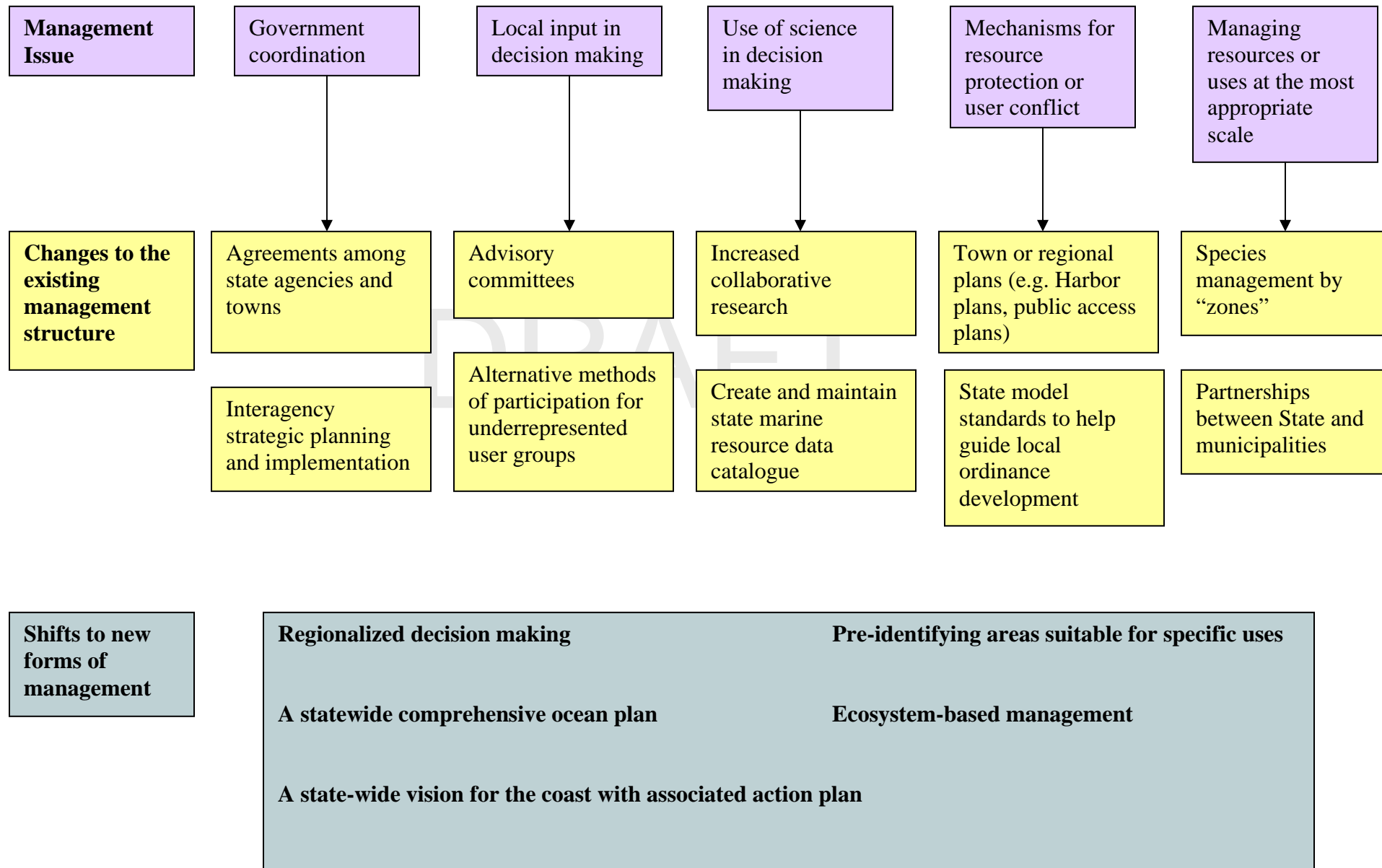
### **Scale of Management**

- Develop regional or state body to coordinate with local grassroots coalitions
- Encourage more regional planning (right now its either town or state).
- Towns need better training. Improve regional staffing/resources for towns to draw from.

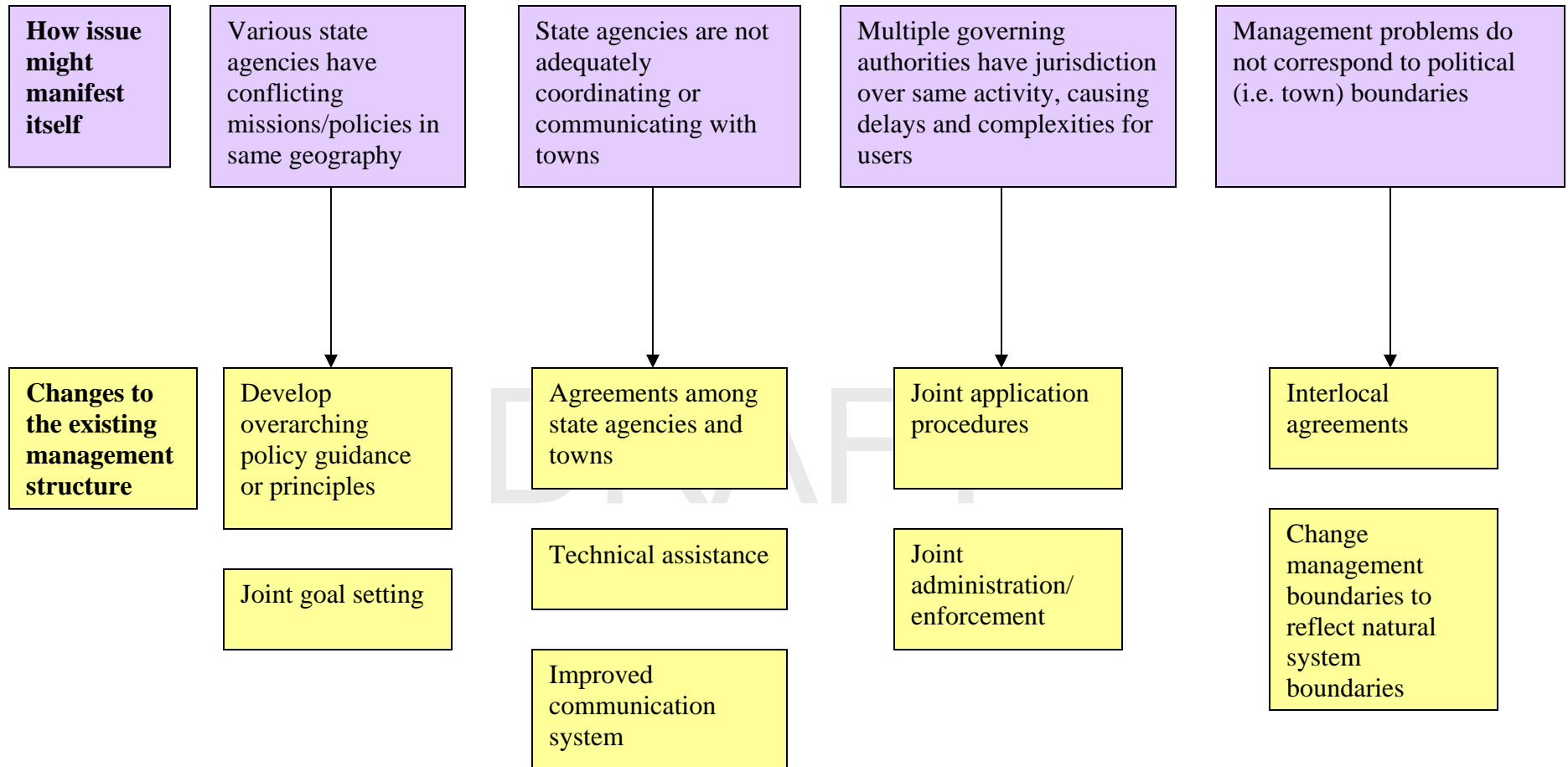
### **Other**

- Bring different stakeholder groups together to share information and strategize.
- Bay management should be guided by the geographic, ecological and social conditions unique to each bay.

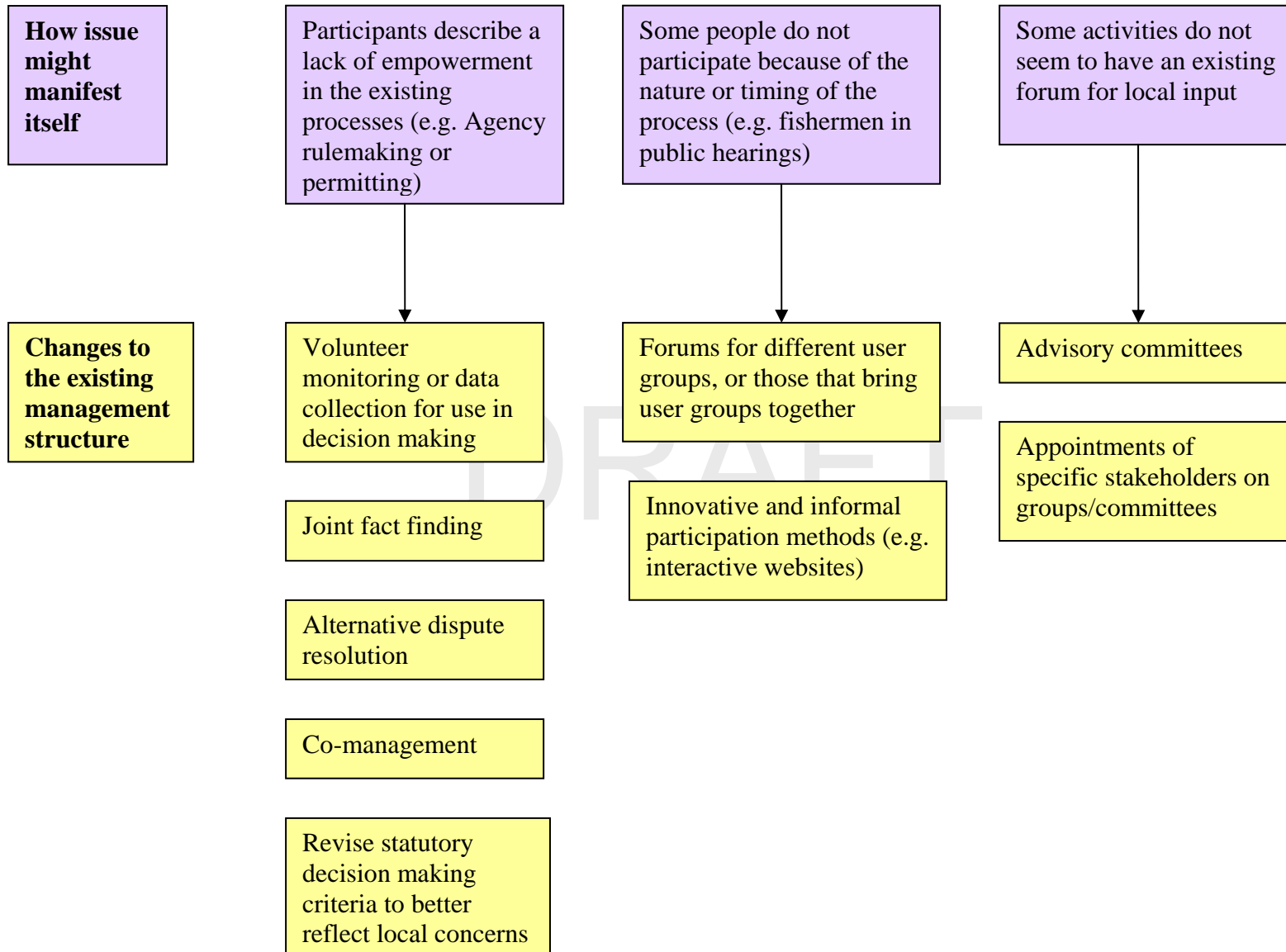
### DOCUMENT 3: MANAGEMENT ISSUES IN COASTAL MAINE



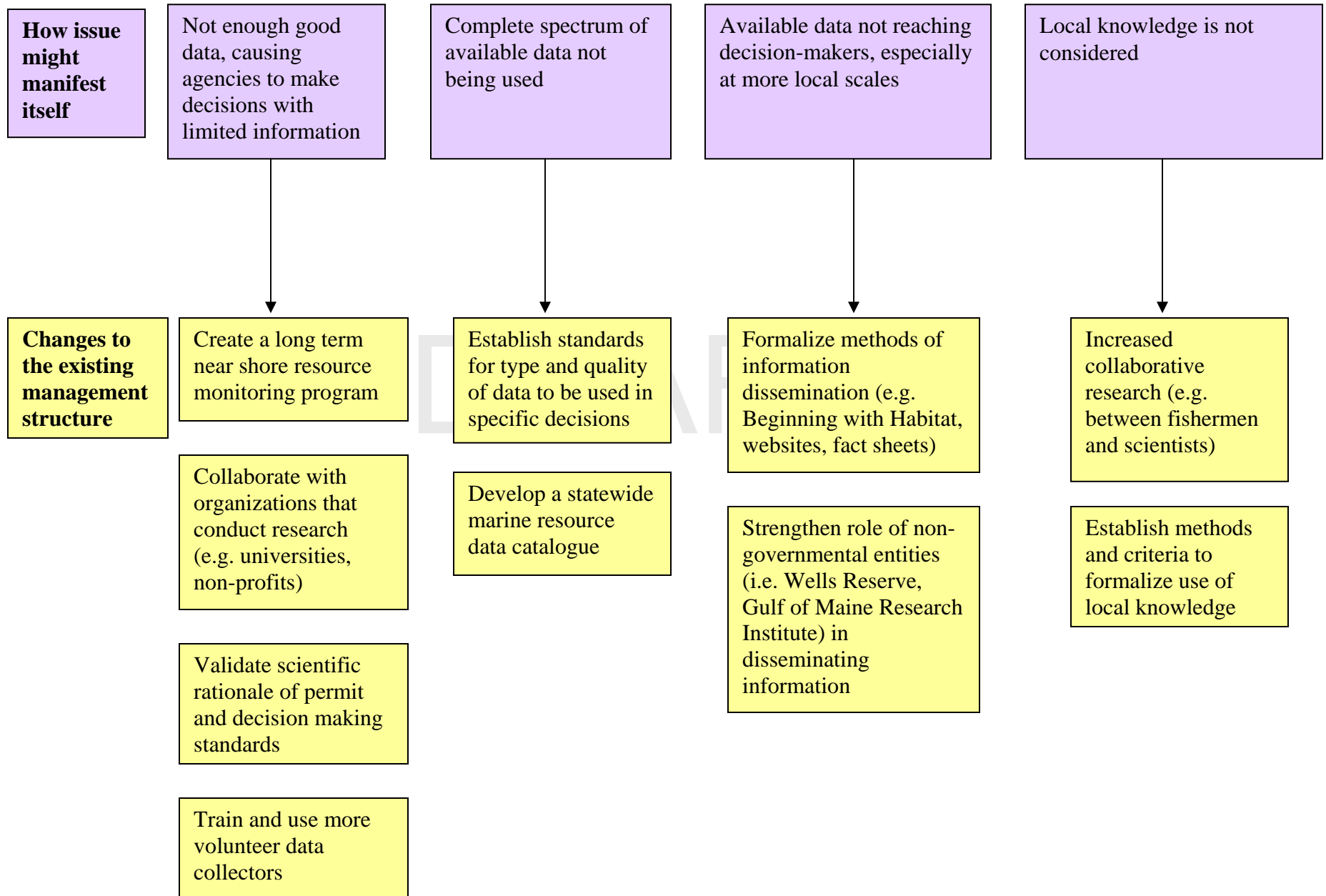
## MANAGEMENT ISSUE: GOVERNMENT COORDINATION



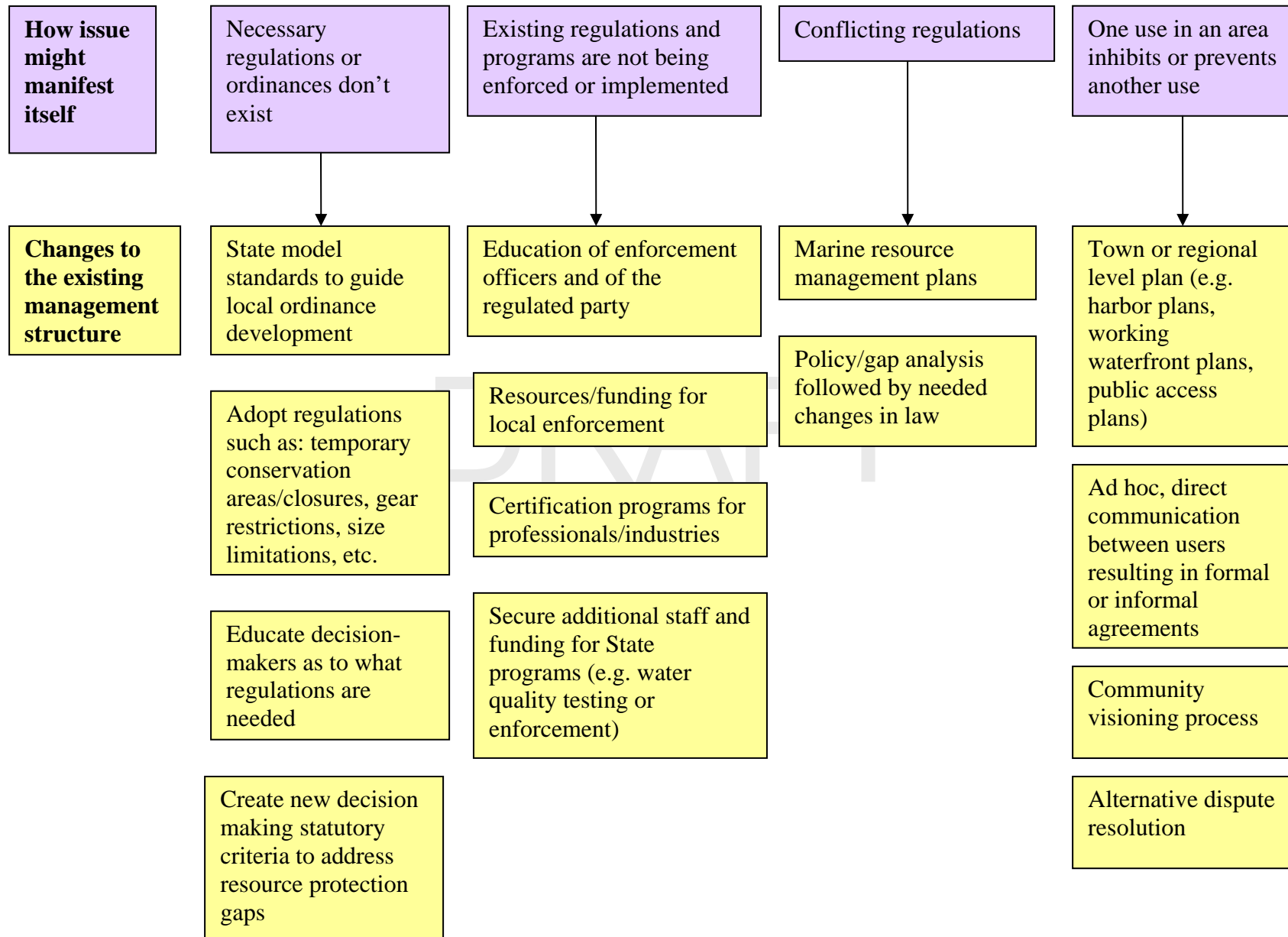
## MANAGEMENT ISSUE: LOCAL INPUT



## MANAGEMENT ISSUE: USE OF SCIENCE IN DECISION MAKING



## MANAGEMENT ISSUE: MECHANISMS FOR RESOURCE PROTECTION OR MULTIPLE USE CONFLICTS



## MANAGEMENT ISSUE: MANAGING RESOURCES OR USES AT THE MOST APPROPRIATE SCALE

